

**A New Avian Cestode, *Metroliaesthes coturnix* n. sp.
from the Intestine of a Japanese Quail,
with an Avian Cestode from a Macow**

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Metroliaesthes coturnix n. sp.

The present cestodes were collected by Funabashi from the small intestine of a Japanese quail, *Coturnix coturnix japonica*, at Toyohashi City, Japan, on January 26, 1972. The specimens were preserved in formalin. Portions of one of them have been used for making stained preparations, upon which the following description is mainly based.

Diagnosis—Paruterinae. The length of the specimens is 70 to 220 mm and the maximum width 1.5 to 2.2 mm. The anterior proglottides are five or six times wider than long, but in the posterior proglottides with the general increase in size, there is an added increase in length, so that the senile proglottides are nearly twice as long as broad. The scolex is spherical with its anterior surface exhibiting a slight conical convexity, measuring 0.415 to 0.484 mm long by 0.277 to 0.332 mm wide. The scolex has neither hooks nor rostellum. The four round suckers are prominent and well developed, measuring 0.097 mm by 0.083 mm. The short unsegmented neck is narrower than the scolex. The segmentation begins at immediately behind the scolex. The genital pores alternate very irregularly, and situated a little posterior to the middle of the each proglottid margin.

The cirrus pouch is a slender cylindrical flash, 0.056 to 0.07 mm long by 0.035 mm wide. From the margin somewhat posterior to the middle of the proglottid, it runs

diagonally forward and inward, ending shortly after crossing the longitudinal excretory canal. Posterior to the cirrus pouch the vagina and seminal receptacle are visible running towards the middle of the proglottid. The ovary is transversely elongated, bipartite, 0.350 to 0.415 mm and situated posterior to median line of the proglottid. The vitellin gland is compact, 0.035 mm in diameter, immediately posterior to ovary. The testes, approximately oval, 0.028 mm in diameter and is about 12 to 15 in number.

The uterus developed as an aporal and poral outgrowth to the female ducts leading from the ovary and increases in size so as to form a narrow sac occupying the central field of the proglottid, then separates into two pouches. These pouches are at first linked together by a narrow isthmus. Anterior to the uterus, a paruterin organ develops, enveloping the anterior ends of the two uterin pouches and developing its anterior end, a small brownish egg-capsule into which the eggs finally pass. Group by group the eggs are forced into the small egg-capsule until it bulges out into an oval capsule. In the senile proglottid uterus and paruterine organ disappear and only brownish round egg-capsule, containing many eggs, is located at anterior margin of the proglottid.

The egg is spherical or oval, 0.077 to 0.075 mm by 0.063 to 0.074 mm, surrounded by three envelopes. The onchosphere is spherical, 0.035 to 0.039 mm in diameter, and the

lateral embryonic hook is 0.021 mm in length and the middle one 0.025 mm.

Discussion

As the species belonging to the genus *Metroliasthes*, only two species, *M. lucida* and *M. fulvida*, have been reported from the Galliformes and the Passeriformes. The present species differs entirely from the above-mentioned two species in many points. The authors regard it, therefore, as a new species and propose the name *Metroliasthes coturnix*. This is the first record of a *Metroliasthes* from the Japanese quail.

Host: *Coturnix coturnix japonica*

Habitat: Small intestine

Locality and Date: Toyohashi City, Aichi Prefecture. February 25, 1972

Type depository: Biological Laboratory, Nara University of Education, Nara, Japan

Raillietina (Raillietina) maplestonei
Southwell, 1930

A number of cestodes were collected by Funabashi from the small intestine of a macaw, *Ara macao* at Toyohashi City, Japan, on August 17, 1972. After the macaw was imported to Japan, it died several days later. It is reasonable to suppose that the macaw was not infected with the cestodes in Japan, but was imported to Japan after being infected with them in South America.

Diagnosis—Davaineidae. The length of the specimens is 220 to 240 mm and the maximum width 2.2 to 2.7 mm. The immature and mature proglottides are greater in width than length, but the senile proglottides greater in length than width.

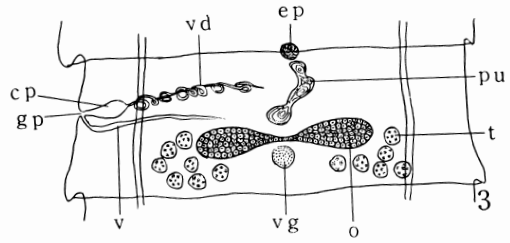
The scolex is 0.553 to 0.662 mm in length and 0.498 to 0.526 mm in width. The rostellum measures 0.170 to 0.221 mm by 0.166 mm, armed with about 190 to 210

hooks of typical Davaineid shape, 0.014 mm long and arranged in a double row. The round suckers are 0.111 mm by 0.124 mm, armed with 6 to 7 marginal circles of hooklets. The neck is 1.2 to 1.4 mm long and 0.367 mm wide.

The genital pores are unilateral and located slightly anterior to the middle of the each proglottid margin. The testes are 38 to 40 in number, arranged on the both sides of the ovary. They are oval in shape, with a diameter of 0.069 to 0.083 mm. The vas deferens lies in the anterior third of proglottid, being near the median line, and extends in a much convoluted course laterally to the base of the cirrus pouch, into which it enters and after some coiling in the basal portion of the latter, becomes transformed into the cirrus. The cirrus pouch is pyriform, 0.111 mm long by 0.028 mm wide. The ovary is placed in the middle field of the proglottid; it is fun-shaped and many lobed. The yolk gland is irregular reniform and located behind the ovary. In the senile proglottid, the uterus resolves into 78 to 93 egg-capsules, which extend laterally, but not beyond the lateral excretory vessel. The egg-capsules are surrounded by a semi-translucent membrane and each egg-capsule contains 6 to 10 eggs. The egg, 0.06 mm by 0.046 mm, is surrounded by thin envelopes. The onchosphere, spherical in shape, measures 0.018 mm in diameter.

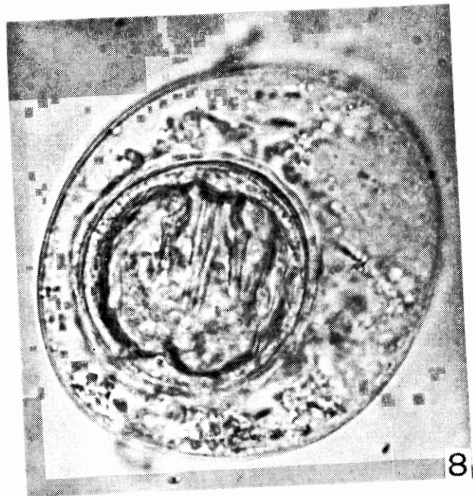
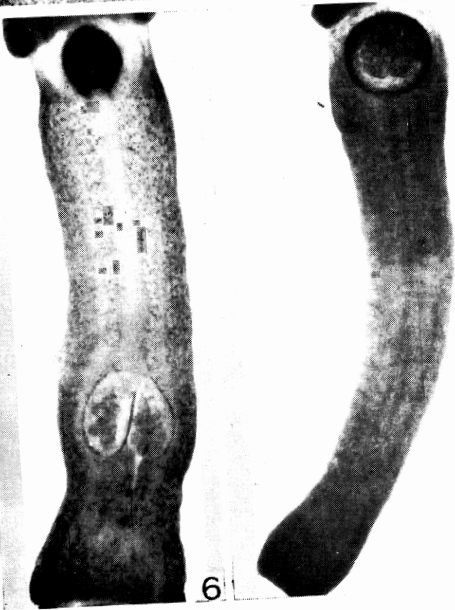
References

- 1) Meggitt, F. J. (1933): Cestodes collected from animals dying in the Calcutta Zoological Gardens during 1931. Rec. Ind. Mus. 35, 145-165.
- 2) Ransom, B. H. (1900): A new avian cestode, *Metroliasthes lucida*. Trans. Am. Micr. Soc. 21, 213-226.
- 3) Southwell, T. (1930): Cestoda. Vol. 11. The fauna of British India, Ceylon and Burma. London.



Abbreviations used

cp-cirrus pouch; ep-egg pouch; gp-genital pore; o-ovary; pu-paruterine orsan; t-testes; v-vagina; vd-vas deferens; vg-vitellin gland.



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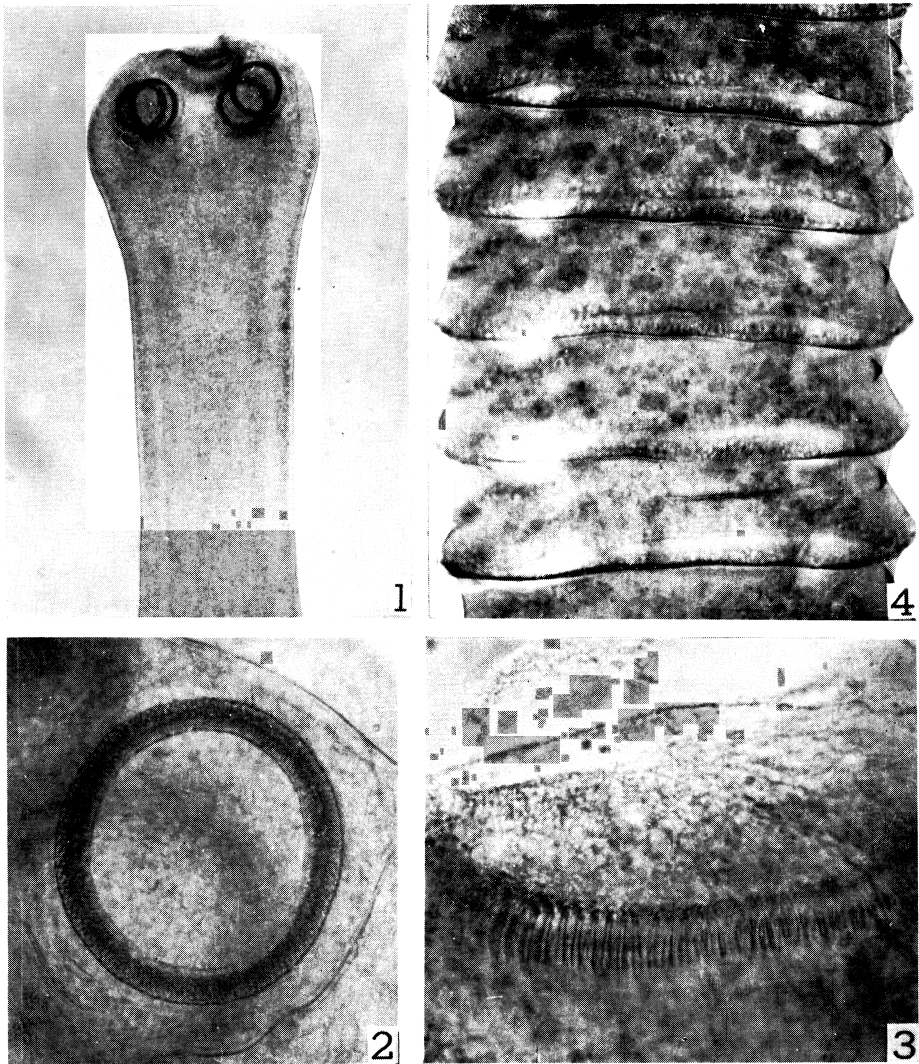


Fig. 1 *Metroliasthes coturnix* n. sp.

1. Scolex ($\times 120$)
2. Mature proglottid ($\times 30$)
3. Outline tracing of mature proglottid
4. Gravid proglottid, showing early stage of uterus and paruterin organ ($\times 40$)
5. Gravid proglottid, showing twisted stage of paruterin organ ($\times 40$)
6. Senile proglottid, showing straight stage of paruterin organ ($\times 40$)
7. Last senile proglottid having only egg-capsule ($\times 40$)
8. Onchosphere ($\times 850$)

Fig. 2 *Raillietina (Raillietina) maplestonei*

1. Scolex ($\times 150$)
2. Sucker ($\times 300$)
3. Rostellar hooks ($\times 600$)
4. Mature proglottid ($\times 25$)

日本ウズラに寄生していた一新条虫 *Metroliaesthes coturnix* n. sp.
およびコンゴインコ的一条虫

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1972年1月26日、豊橋市にて集団飼育されていた日本ウズラ *Coturnix coturnix japonica* の小腸から多数の条虫が採取された。虫体を圧片染色して標本をつくり、頭節ならびに生殖器官の形態を調べた結果、日本では未記録である Genus *Metroliaesthes* に属する一新条虫であることが判明した。そこで *Metroliaesthes coturnix* n. sp. と命名した。本虫体の特徴は受胎片節における子宮の形態にあつて、中央の狭部をはさんで左右2個の嚢にわかれ、その直前に paruterin organ が位置するこ

とである。老熟片節においては子宮ならびに paruterin organ はすべて消失し、褐色の円形を呈した卵嚢のみが片節の前端に残存している。

一方、1972年8月17日、ヨーロッパ経由で輸入されたコンゴインコ *Ara macao* が死亡したので、小腸を剖検したところ多数の条虫の寄生を発見した。圧片染色標本について調査した結果 *Raillietina* (*Raillietina*) *maplestonei* Southwell, 1930 であることが判明した。